# CONTENTS OF VOLUME 74

**No. 1, October 1988**


*C. Marconi, N. Heisler, M. Meyer, H. Weitz, D.R. Pendergast, P. Cerretelli and J. Piiper (F.R.G., Switzerland, Italy, U.S.A.):* Blood flow distribution and its temporal variability in stimulated dog gastrocnemius muscle (RSP 01456) 1

*M.S. Kannan and C. Davis (U.S.A., Canada):* Mode of action of calcium antagonists on responses to spasmogens and antigen challenge in human airway smooth muscle (RSP 01446) 15

*O.P. Mathew, F.B. Sant'Ambrogio and G. Sant'Ambrogio (U.S.A.):* Laryngeal paralysis on receptor and reflex responses to negative pressure in the upper airway (RSP 01448) 25

*J. Mitra, N.R. Prabhakar, J.L. Overholt and N.S. Cherniack (U.S.A.):* Respiratory and vasomotor responses to focal cooling of the ventral medullary surface (VMS) of the rat (RSP 01451) 35

*R.A.F. Linton and D.M. Band (U.K.):* The relationship between arterial pH and chemoreceptor firing in anaesthetized cats (RSP 01449) 49

*C. Springer, D.M. Cooper and K. Wasserman (U.S.A.):* Evidence that maturation of the peripheral chemoreceptors is not complete in childhood (RSP 01450) 55

*R.A. Ferguson and R.G. Boutilier (Canada):* Metabolic energy production during adrenergic pH regulation in red cells of the Atlantic salmon, *Salmo salar* (RSP 01455) 65

*S. Thomas, B. Fievet, G. Claireaux and R. Motais (France):* Adaptive respiratory responses of trout to acute hypoxia. I. Effects of water ionic composition on blood acid–base status response and gill morphology (RSP 01452) 77

*G. Claireaux, S. Thomas, B. Fievet and R. Motais (France):* Adaptive respiratory responses of trout to acute hypoxia. II. Blood oxygen carrying properties during hypoxia (RSP 01453) 91

*B. Fievet, G. Claireaux, S. Thomas and R. Motais (France):* Adaptive respiratory responses of trout to acute hypoxia. III. Ion movements and pH changes in the red blood cell (RSP 01454) 99

*S. Blank, V. Chen and C.D. Ianuzzo (Canada, U.S.A.):* Biochemical characteristics of mammalian diaphragms (RSP 01447) 115

*Announcement* 127


**No. 2, November 1988**


*W.-C. Ko and Y.-L. Lai (U.S.A.):* The tracheal nonadrenergic noncholinergic inhibitory system during antigen challenge (RSP 01457) 129

*S. Nakanishi, T. Hiramoto, N. Ahmed and Y. Nishimoto (Japan):* Almitrine enhances in low dose the reactivity of pulmonary vessels to hypoxia (RSP 01458) 139

*M. Estenne, V. Ninane and A. De Troyer (Belgium, U.S.A.):* Triangularis sterni muscle use during eupnea in humans: effect of posture (RSP 01459) 151

*R.B. Filuk, D.J. Berezanski, P.A. Easton and N.R. Anthonisen (Canada):* High-frequency oscillatory ventilation may increase airway closure (RSP 01464) 163

*L. Xu and J.P. Mortola (Canada):* Development of the chick embryo: effects of egg mass (RSP 01462) 177

*A. Okuda and H. Tazawa (Japan):* Gas exchange and development of chicken embryos with widely altered shell conductance from the beginning of incubation (RSP 01460) 187

*H. Tazawa, S.-i. Nakazawa, A. Okuda and G.C. Whittow (Japan, U.S.A.):* Short-term effects of altered shell conductance on oxygen uptake and hematological variables of late chicken embryos (RSP 01461) 199

*D. K. Rorie, G. M. Tyce, W. Edwards, R. Sittipong and M. P. Kaye (U.S.A.):* Chronic hypoxia alters structure and transmitter dynamics in dog pulmonary artery (RSP 01463) 211

*D. J. Paterson and P. C. G. Nye (U.K.):* The effect of beta adrenergic blockade on the carotid body response to hyperkalaemia in the cat (RSP 01466) 229

*J. Green, S. T. Chiang, W. F. Wang, Y. J. Yang and Y. C. Kao (Republic of China):* Volume and pressure during transient added resistance (RSP 01465) 239

**No. 3, December 1988**

*S. D. Fuller and N. E. Robinson (U.S.A.):* Mechanism of increased collateral airway resistance during inhomogeneous inflation of excised dog lungs (RSP 01470) 253

*A. Lama, S. Delpierre and Y. Jammes (France):* The effects of electrical stimulation of myelinated and non-myelinated vagal motor fibres on airway tone in the rabbit and the cat (RSP 01474) 265

*D. L. Maxwell, J. M. B. Hughes and P. C. G. Nye (U.K.):* The effect of almitrine bismesylate on the steady-state responses of arterial chemoreceptors to $CO_2$ and $O_2$ in the cat (RSP 01467) 275

*F. L. Powell, W. K. Milsom and G. S. Mitchell (U.S.A., Canada):* Effects of intrapulmonary $CO_2$ and airway pressure on pulmonary vagal afferent activity in the alligator (RSP 01468) 285

*J. L. Overholt, J. Mitra, E. van Lunteren, N. R. Prabhakar and N. S. Cherniack (U.S.A.):* Naloxone enhances the response to hypercapnia of spinal and cranial respiratory nerves (RSP 01469) 299

*R. A. Furilla and D. Bartlett, Jr. (U.S.A.):* Intrapulmonary receptors in the garter snake (*Thamnophis sirtalis*) (RSP 01472) 311

*J. B. West (U.S.A.):* Rate of ventilatory acclimatization to extreme altitude (RSP 01473) 323

*M. J. A. Engwall, E. H. Vidruk, A. M. Nielsen and G. E. Bisgard (U.S.A.):* Response of the goat carotid body to acute and prolonged hypercapnia (RSP 01475) 335

*Ø. Tøien, C. V. Paganelli, H. Rahn and R. R. Johnson (U.S.A.):* Diffusive resistance of avian eggshell pores (RSP 01471) 345

*P. Cerretelli, B. Grassi, A. Colombini, B. Carù and C. Marconi (Switzerland, Italy):* Gas exchange and metabolic transients in heart transplant recipients (RSP 01476) 355

*L. J. Teppema, F. Rochette and M. Demedts (Belgium):* Ventilatory response to carbonic anhydrase inhibition in cats: effects of acetazolamide in intact *vs* peripherally chemodenervated animals (RSP 01477) 373

*S. Egginton, Z. Turek and L. J. C. Hoofd (U.K., The Netherlands):* Differing patterns of capillary distribution in fish and mammalian skeletal muscle (RSP 01478) 383